

3/17/06

Washington State Health Care Authority
Health Information Infrastructure Advisory Board

Preliminary Report: Revenue Potential of Community Health Care Information

Assignment:

Explore and estimate the revenue potential of a complete repository of health care information in the community to assist HIIAB in assessing the role of such revenue in creating and sustaining such a system.

Summary of Preliminary Assessment:

While the potential revenue generated from a complete repository of community health care data may be as much as \$17/person/year, this funding source is likely to start very small and develop slowly. It is unlikely to provide early operational revenue, or be usable to substantially leverage start-up costs. In addition, even though revenue may ultimately be substantial, it is not likely to offset most or all of the infrastructure cost even over time. Because of the inherent delay in realizing such revenue, this preliminary conclusion is insensitive to errors in the estimated amount of the potential revenue or the assumption about the cost of the infrastructure.

Assumptions:

1. Most potential revenue will be derived from the use of the information to assist with clinical research, particularly in identifying qualifying subjects for clinical trials
2. Although it is not possible to accurately estimate the size and rate of development of this revenue stream, it may be possible to develop an estimate that allows HIIAB to understand whether such revenue could reasonably be expected to help to create and sustain the overall system
3. The cost of the health information infrastructure system is about \$60/person/year (\$16.8 billion for the U.S. population of 280 million)

Relevant Background Information and Findings:

1. Electronic alerts can increase clinical trial recruitment
In an academic medical center trial, alerts resulted in a ten-fold increase in referrals for a clinical trial, and a two-fold increase in enrollment (National Cancer Institute, 11/2/05)
2. Facts about clinical trials (from Parkinson Pipeline Project, 2/11/06):
 - a. "The biggest obstacle to patient participation is lack of awareness about clinical research studies"
 - b. "Difficulties in patient enrollment delay 81 percent of all clinical trials at least one to six months ... Drug companies stand to lose between \$600,000 and \$8 million each day clinical trials delay a drug's development and launch. [CenterWatch]"

- c. "The average per-patient cost is about \$5,500 for a Phase I trial; \$6,500 for a Phase II trial; and more than \$7,600 for a Phase III trial. Recruiting clinical trial participants costs more and consumes more time than any other aspect of the drug development process."
- 3. Improving Patient Recruitment Strategies Through Technology (Veritas Medicine vol. 1, #2, Dec 2003)
 - a. "Sponsors spend approximately \$520 million each year on patient recruitment programs [CenterWatch, 1999, 2000]"
 - b. "The cost of patient recruitment can be reduced by up to 75% by using e-recruitment programs [Datamonitor]"
- 4. Thomson Medstat financial results for health & science database use.
Thomson-Medstat maintains large medical databases (primarily claims data) and charges fees for their use. In 2004, their Science and Healthcare Division had \$800 million in revenue (note that only an unknown fraction of this relates to use of medical data)

Interpretation

Methodology	Analysis
Determine if any query revenue at all can be expected by reviewing examples of the current use of related data and/or instances where the availability of such data could provide financial benefits.	It is clear from the examples cited above relating to clinical trial recruitment, including spending for this, that a complete community healthcare data repository has substantial value.
Using a "reasonableness" approach based on the total costs of clinical research, estimate what fraction of research costs could possibly be devoted to payments for queries from a health care data repository.	<ul style="list-style-type: none"> a. The most recently reported total U.S. spending on medical research is about \$94 billion in 2004 (Journal of the AMA, 9/21/2005) including all basic science and clinical trials. b. Assuming no more than 50% of this spending is on clinical trials (a very generous estimate), the total for such trials would be \$47 billion. c. A reasonable guess about the maximum fraction of this that might be spent on queries of community health care repositories is 10% or \$4.7 billion (= \$16.78/person)
Attempt to estimate the time frame for revenue development	<ul style="list-style-type: none"> a. Value will initially be low and increase over time as there is more data b. Market is undeveloped -- will take time to establish value and secure revenue c. therefore, revenue will start very low and grow slowly

Conclusion

The revenue potential of a complete community repository of health care data is probably no more than \$17/person/year. However, developing this new market is likely to take several years. Therefore, such revenue is unlikely to provide early operational support, or be usable to substantially leverage start-up costs.

Next Steps

Additional background information is still being collected to refine the rough estimate developed so far. Changes in the estimated size of the potential market are unlikely to have any impact on the slow process of developing this revenue source, so the final conclusion is unlikely to change appreciably.